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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/547,443	11/07/2005	Marysusan Couturier	L3799-01	1200

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W. R. GRACE & CO.-CONN
ATTENTION: PATENT DEPARTMENT
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CAMBRIDGE, MA 02140

EXAMINER

OJURONGBE, OLATUNDE S

ART UNIT	PAPER NUMBER
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4145

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03/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/547,443	Applicant(s) COUTURIER, MARYSUSAN	
	Examiner OLATUNDE S. OJURONGBE	Art Unit 4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060303; 20070724; 20071005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. It is noted that this application appears to claim subject matter disclosed in prior Application No.10/379746, filed 03/05/2003. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an

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unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: it improperly lists PCT/US2004/005659 as a foreign application.

Claim Objections

3. **Claim 16** is objected to because of the following informalities: The claim recites “oxidized polyetheylene homopolymer”; suggested correction is to replace this with oxidized polyethylene homopolymer.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1, 2 and 19** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **claim 1** recites the limitation "said siloxane" in line 5 and “said base polymer(s)” in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 2, the phrase "such as" (line 2) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 19 recites the limitation "said beverage container closure" in lines 24-25. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined

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application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. **Claims 1-21** of the instant application are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,806,313. Although the conflicting claims are not identical, they are not patentably distinct from each other because the combination of claims 1, 2 and 7 of the instant application are directed to a composition comprising a matrix polymer, essentially free of erucamide and unsaturated amide, an organopolysiloxane lubricant of molecular weight not less than 40,000 and a slip aid comprising a saturated amide, an oxidized polyethylene or a mixture thereof; claim 1 of the US patent No. 6,806,313 discloses a similar composition, hence claim 1 of the instant application is not patentably distinct from the combination of claims 1, 2 and 7 of the US patent.

Claims 3-6 and 8-21 of the instant application are not patentably distinct from corresponding claims 2-20 of the US patent No. 6,806,313, because said instant claims only recite limitations also recited in said claims 2-20 of US 6,806,313.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. **Claims 1-8, 11-14 and 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight et al (EP 0129309) in view of Couturier (US 4,870,128).

Regarding **claims 1, 6, 7 and 21**, Knight et al discloses a composition, comprising:

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(A) a matrix polymer, copolymer, or blend thereof, which is essentially free of erucamide and which is essentially free of unsaturated amide; (see thermoplastic polymeric material, page 6, line 22).

(B) a silicone lubricant (page 9, line 12), said siloxane being present in an amount not less than .01 parts and not greater than 10 parts based on 100 parts of said base polymer(s); (page 11, lines 8-9) and

(C) a slip aid comprising a saturated amide (see stearamide, page 9, line 11), an oxidized polyethylene, or mixture thereof; said slip aid being in an amount not less than 0.01 parts and not greater than 8 parts based on 100 parts of said component (A).(see fatty amide, page 11, line 26).

Additionally, Knight et al discloses a silicone lubricant having a viscosity of 60,000 centistokes (see polysiloxane , page 10, lines 10-11).

However, Knight et al does not explicitly disclose the polysiloxane being a poly(dimethylsiloxane).

Couturier et al teaches a similar composition comprising: a blend of thermoplastic copolymers (col.2, line 3) and a combination of one or more lubricants chosen from a list that includes fatty amides and organopolysiloxanes, exemplified by polydimethylsiloxane (col.3, line 48).

Since both Knight's and Couturier's inventions are in the same field of endeavor (sealants), It would have been obvious to one of ordinary skill in the art, at the time the invention was made to have tried and use polydimethylsiloxane as taught by Couturier et al at a viscosity disclosed by Knight et al, said combination will amount to nothing more than the use of a known element for its intended use in a known environment to accomplish entirely expected result.

Regarding the silicone lubricant having an average molecular weight not less than 40,000, using the viscosity/ molecular weight conversion formula: $\log n = 1.00 + 0.0123M^{0.5}$, Where n is the viscosity of the polydimethylsiloxane in centistokes, and M is the number-average molecular weight of the polydimethylsiloxane, the number average molecular weight of the disclosed siloxane is approximately 94,000.

Hence, a silicone lubricant having an average molecular weight not less than 40,000 is inherently disclosed by modified Knight et al.

Further, regarding claim 21, statements in the preamble reciting the purpose or intended use of the claimed invention which do not result in a structural difference between the claimed invention and the prior art do not limit the claim and do not distinguish over the prior art apparatus. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and cases cited therein, as it has been held that the recitation of a new intended use for an old product does not make a claim to that old product patentable. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997). See also MPEP § 2111.02 and § 2112 - § 2112.02.

Regarding **claim 2**, modified knight et al discloses all the claim limitations as set forth above and further discloses the composition, wherein said component A comprises thermoplastic polymers such as polyethylene (page 6, line 28) or ethylene copolymer with other lower alkenes,

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polypropylene, thermoplastic rubbers(see thermoplastic polymers), ethylene propylene copolymers, acid modified ethylene propylene copolymers, styrene butadiene rubber, carboxylated styrene butadiene, polyisoprene, styrene isoprene styrene block copolymers, styrene butadiene styrene block copolymers, styrene ethylene butylene styrene block copolymers, polystyrene block polyethylene/propylene copolymers, polystyrene block polyethylene propylene polystyrene copolymers, polystyrene block polyethylene ethylene propylene styrene copolymers polystyrene, ethylene vinyl acetate copolymers and terpolymers, ethylene acrylate co and terpolymers ethylene vinyl alcohol copolymers, butyl rubber, ethylene acid copolymers, polyvinyl chloride polymers, said polymer or copolymers being 100% of said component (A) (page 6, line 26- page 7, line 7).

Regarding **claim 3**, modified Knight et al discloses all the claim limitations as set forth above and further discloses the composition, wherein said matrix polymer comprises an ethylene vinyl acetate copolymer in an amount not less than 5 parts and not greater than 100 parts, based on 100 parts of said component (A). (page 7, lines 4-7 and page 8, lines 4-7).

Regarding **claim 4**, modified Knight et al discloses all the claim limitations as set forth above and further discloses the composition, wherein said matrix polymer further comprises ethylene, propylene, or blend thereof. (see polyethylene page 7, lines 4-7).

Regarding **claim 5**, modified Knight et al discloses all the claim limitations as set forth above and further discloses the composition, wherein said matrix polymer further comprises a copolymer of ethylene and propylene. (page 6, line 30 and see polyalkylene lines 4 -7).

Regarding **claims 8, and 11 -14**, modified Knight et al discloses all the claim limitations as set forth above and further discloses the composition, wherein said slip aid is a saturated amide selected from the group consisting of behenamide, stearamide, arachidamide, palmitamide, myristamide, lauramide and ethylene bis-stearamide. (see stearamide, page 9, line 11).

Regarding **claim 20**, modified Knight et al discloses all the claim limitations as set forth above and further discloses the composition being molded into a cap liner. (page 9, lines 25-32).

12. **Claims 9, 10 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight et al (EP 0129309) in view of Couturier (US 4,870,128) as applied to claim 1 above, in further view of Burdock, G. (Oxidized polyethylene wax).

Regarding claims **9, 10 and 16**, modified knight et al discloses all the claim limitations as set forth above.

However, modified Knight et al does not explicitly disclose a composition wherein said slip aid is: an oxidized polyethylene, comprises both a saturated amide and an oxidized polyethylene or is an oxidized polyethylene homopolymer.

Modified Knight et al further discloses the composition comprising polyethylene wax (page 7, lines 29-34 and page 11, line 16).

Burdock teaches that oxidized polyethylene is produced when polyethylene is oxidized in mild air.

Since modified Knight et al does not disclose that the composition is used in vacuum, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the polyethylene wax disclosed by modified Knight et al would have undergone oxidation in air, hence, become oxidized.

Further, a chemical composition and its properties are inseparable; therefore, if the prior art teaches the identical chemical composition, the slip aid properties applicant discloses and/or claims are necessarily present in the oxidized polyethylene. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

13. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight et al (EP 0129309) in view of Couturier (US 4,870,128) as applied to claim 1 above, in further view of Naseem et al (US 2002/0120037).

Modified Knight et al discloses all the claim limitations as set forth above; however, Knight et al does not explicitly disclose the composition, wherein said saturated amide is behenamide.

Modified Knight et al further discloses a slip aid comprising of fatty amides with aliphatic groups containing preferably 14 to 25 carbon atoms, giving stearamide as an example.

Naseem et al discloses a similar composition comprising a thermoplastic polymer (0011, lines 1-6) and behenamide (0010, lines 1-8).

Naseem et al further discloses that Benenamide is fully saturated and it is believed to be relatively resistant to ozone oxidation and to photochemical oxidation. Moreover, behenamide has a neutral taste and odor. (0026, lines 1-end).

Since modified Knight's and Naseem's inventions are in the same field of endeavor (sealant), it would have been obvious to one of ordinary skill in the art to have incorporated behenamide into the composition of modified Knight et al based on these properties of behenamide, said combination would amount to nothing more than use of a known element for its intended use in a known environment to accomplish entirely expected result.

14. **Claims 17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight et al (EP 0129309) in view of Couturier (US 4,870,128) as applied to claim 1 above, in further view of Akao et al (EP 0569950).

Regarding claims **17-19**, modified Knight et al discloses all the claim limitations as set forth above; however, modified Knight et al does not explicitly disclose the composition being molded into a beverage container nor a plastic cap.

Akao et al teaches a similar composition comprising of thermoplastic polymers (see crystalline resin, page 3, line 36- page 4, line 28), saturated fatty amides (page 4, lines 45-49) and polydimethylsiloxane lubricant (page 5, lines 26-33).

Akao et al further teaches the composition being molded into packaging materials of various designs, including a cap-body integrated type and cap separated from body-type containers (page 3, lines 6-23) applicable to various photosensitive materials, including foods (page 24, lines 6-9).

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It is noted that both compositions disclosed by modified Knight and Akao are very similar, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have tried molding the composition of modified Knight into a beverage container or a plastic cap as taught by Akao et al with expected success; said combination would amount to use of a known element for its intended use in a known environment to accomplish entirely expected result.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLATUNDE S. OJURONGBE whose telephone number is (571)270-3876. The examiner can normally be reached on Monday-Thursday, 7.15am-4.45pm, EST time, Alt Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272 1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.S.O

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 4145